

Serial No. 10/070,084
Docket No. PU3517USw
Reply to Office Action of February 17, 2004

Remarks

In the Office Action mailed February 17, 2004, claims 15, 16, 21, and 22 were withdrawn from consideration, and claims 2 - 7, 9 - 30, 34 - 36, and 38 - 55 stand rejected. Claims 17, 24, 27, 38, 39, 41, and 42 have been canceled from the present application without prejudice to the re-filing of the claims in a continuation application. Claims 56 - 62 have been added. Support for new claim 56 is provided in the specification at page 27. Support for new claim 57 is provided in the specification at page 11 and original claim 14. Support for claims 58 - 62 is provided in the specification at pages 4, 16 - 17 and original claims 3, 4, 7, 18, 19, and 20. Claims 18, 19, 40 and 45 been amended to remove the dependency on canceled claims. Claim 20 has been re-written in independent format. Support for the amendment is provided in the specification at pages 4, 16 - 17 and original claim 20. Typographical errors in claims 4, 25, and 29 have been corrected. No new matter has been added. Additional claim amendments are discussed below. Claims 2 - 7, 9 - 14, 18 - 20, 23, 25, 26, 28, 29, 30, 34 - 36, 40, and 43 - 62 are pending.

35 U.S.C. 112, first paragraph

Claims 27 - 30 and 48 - 53 are rejected under 35 U.S.C. § 112, first paragraph because the Examiner contends that the specification "does not reasonably provide enablement for treatment of all other viral infections and/or prevention of infection by HIV." Applicants respectfully traverse. Claim 27 has been canceled. Therefore, the rejection is moot as to claim 27. Claims 28 and 40 have been written in independent claim format so as to not depend from canceled claims. Claim 20 has been re-written in independent claim format. Support for the amendment is provided in the specification at pages 16 - 17 and original claim 20. Claims 28, 48 and 49 have been amended to relate to HIV infections. Support for the amendments to claims 28, 48 and 49 can be found in the specification at pages 31 - 32 and Example 275. Claims 28, 29, 30 and 48 - 53 relate to HIV infections. The Examiner has stated that claims 27 - 30 and 48 - 53 are enabled for treatment of HIV infections.

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Applicants respectfully disagree with the Examiner's contention that claims 48, 49, 52 and 53 are not enabled for prevention of HIV. Doses, modes of administration, and pharmaceutical formulations can be found in the specification at pages 63-67. There is precedent for use of antiretroviral agents in the prevention of HIV infection. For example, Retrovir® (zidovudine) is a reverse transcriptase inhibitor that is indicated for prevention of maternal-fetal transmission of HIV (see Retrovir® (zidovudine) prescribing information, page 8, April, 2003, copy enclosed). Because the specification teaches how to use the compounds of the invention and because HIV reverse transcriptase inhibitors may be used to prevent HIV infection, Applicants respectfully request the withdrawal of the rejection of claims 28, 29, 30, 48 - 53 under 35 U.S.C. §112, first paragraph.

Claims 2 - 7, 9 - 14, 17 - 20, 23 - 30, 34 - 36 and 38 - 55 are rejected un 35 U.S.C. § 112, first paragraph because of the phrase "pharmacaceutically acceptable derivative". Claims 17, 24, 27, 38, 39, 41, and 42 have been canceled. Therefore the rejection is moot as to claims 17, 24, 27, 38, 39, 41, and 42. Claims 2, 3, 5, 6, 7, 9, 10 - 13, 18 - 20, 23, 25, and 40 have been amended to recite pharmaceutically acceptable salts, and therefore, claims 14, 26, 28, 29, 30, 34 - 36, 43 - 55 refer to pharmaceutically acceptable salts by their dependency from amended claims. Support for the amendment can be found in the specification at pages 29 - 31. The Examiner's point having been addressed, Applicants respectfully request the withdrawal of the rejection of claims 2 - 7, 9 - 14, 18 - 20, 23, 25, 26, 28 - 30, 34 - 36, 40, and 43 - 55 under 35 U.S.C. §112, first paragraph.

35 U.S.C. § 112, second paragraph

Claims 2 - 7, 9 - 14, 17 - 20, 23 - 30, 34 - 36, and 38 - 55 are rejected under 35 U.S.C. § 112, second paragraph. Applicants respectfully traverse and submit the following:

a. An illustration of the term " $-SR^{10}N(R^{10})_2$ " in, for example, claim 2, is provided by Example 71, page 145.

b. An illustration of the term " $-NC(O)R^{11}$ " in, for example, claim 6, is provided by Example 122, page 208.

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c. The term " $\text{-NS(O)}_2\text{R}^7$ " has antecedent basis because claim 3 is now written in independent format. Support for the amendment is provided on page 5 – 6 of the specification.

d. An illustration of the term " $\text{-NS(O)}_2\text{R}^7$ " is provided by Example 140 on page 228.

e. Claim 4 has been amended to incorporate the substituent R^5 from claim 1 from which claim 4 originally depended.

f. Claim 5 has been amended to provide a definition for X. Support for the amendment is provided in the specification at page 4 and originally filed claim 14.

g. In claims 6 and 10, one of ordinary skill in the art would understand that open valencies are filled with hydrogen. Illustrations of writing structures in this way are provided in the Examples.

h. An illustration of the term " $\text{-OR}^{11}\text{OR}^{11}$ " is provided by Examples 250, 251, and 252 on pages 359 - 361.

i. Claim 24 has been canceled from the present application without prejudice to re-filing the claim in a continuation application.

j. Claims 26 and 43 – 47 have been amended to delete the term "in particular methyl".

Examiner's points a. through j. having been addressed, Applicants respectfully request withdrawal of the rejection of claims 2 - 7, 9 - 14, 17 - 20, 23 - 30, 34 - 36, and 38 - 55 under 35 U.S.C. § 112, second paragraph.

35 U.S.C. § 102(b)

Claim 17 has been rejected under 35 U.S.C. § 102(b). Claim 17 has been cancelled from the present application, therefore the rejection is moot.

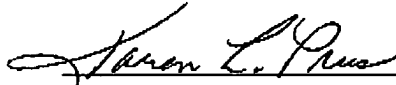
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In view of the amendment and foregoing discussion, it is respectfully submitted that the present application is in condition for allowance. An early consideration and notice of allowance are earnestly solicited.

Respectfully submitted,

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